

## Claims

1. Device for introducing gas into a fluidised bed having at least one gas inlet pipe (2, 3) located underneath and/or above the fluidised bed, characterised in that the gas inlet pipe (2, 3) has gas-swirling means upstream of and/or at its mouth.
2. Device according to claim 1, characterised in that the gas-swirling means form at least one narrowing or widening of the pipe lumen.
3. Device according to claim 2, characterised in that the narrowing has at least one edge.
4. Device according to claim 1, 2 or 3, characterised in that the gas-swirling means consist at least in part of a thread.
5. Device according to any one of the preceding claims, characterised in that the gas-swirling means have at least one bead (6).
6. Device according to any one of the preceding claims, characterised in that the gas-swirling means have at least one screen, at least one turbulence grid and/or at least one perforated diaphragm.
7. Device according to any one of the preceding claims, characterised in that the gas inlet pipe has gas-swirling means that generate a velocity profile that is substantially constant over the cross-section of the pipe.
8. Device according to any one of the preceding claims, characterised in that the gas comprises ethene, oxygen and/or hydrogen chloride.
9. Fluidised bed reactor, characterised in that it is equipped with a device according to any one of the preceding claims.

10. Process for the production of 1,2-dichloroethane by means of a fluidised bed reactor which is provided with a device for introducing gas in accordance with any one of the preceding claims, in which process ethene, oxygen and/or hydrogen chloride are introduced into a fluidised bed having a catalyst.
11. Process according to claim 10, characterised in that in the case of the gas inlet pipes (2) arranged underneath the fluidised bed (4), the gas current is discharged at an average discharge velocity in the range of from 0.5 to 10 m/s.
12. Process according to claim 10, characterised in that in the case of the gas inlet pipes (2) arranged underneath the fluidised bed (4), the gas current is discharged at an average discharge velocity in the range of from 3 to 6 m/s.
13. Process according to claim 10, characterised in that in the case of the gas inlet pipes (3) arranged above the fluidised bed (4), the gas current is discharged at an average discharge velocity in the range of from 0.7 to 10 m/s.
14. Process according to claim 10, characterised in that in the case of the gas inlet pipes (3) arranged above the fluidised bed (4), the gas current is discharged at an average discharge velocity in the range of from 2 to 5 m/s.